# King County Investment Pool Portfolio Review

Quarter Ended March 31, 2016



Presented by:

**PFM Asset Management LLC** 

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### **Executive Summary**

# Purpose, Scope and Approach Investment Program and Portfolio Review Market Recap

- PFM Asset Management LLC ("PFM") prepared this report to update our ongoing analysis and to address any Investment Pool developments since our December 2015 review. Our approach included a detailed portfolio analysis and Investment Policy Compliance review, based on the County's Investment Policy, dated September 2015.
- · Our analysis was based on the Investment Pool's holdings as of March 31, 2016, with reference to holdings in past periods.
- The review encompasses all current investments in the County's Investment Pool.
- PFM reviewed the County's portfolio with respect to Investment Policy Compliance, Sector Allocation, Issuer Concentration, Credit Quality, Maturity Distribution, and Duration Distribution.
- The County's Investment Pool appears to provide ample liquidity, is well diversified, and is of sound credit quality. All holdings are investment grade and pose very low risk to principal.
- Interest rates in the U.S. are likely to remain dependent upon gauges of growth and inflation, as well as global economic developments. The Federal Reserve will also base future policy decisions on these key factors. We expect at most two rate hikes in 2016, with even those being contingent on both reasonable market stability and the receipt of favorable economic data.
- Treasury yields reversed strongly following the March 16 Fed meeting. Investors interpreted the Committee's "dovish" tone by lowering expectations for rate hikes in 2016. Year-to-date, intermediate-term yields are down 30-60 basis points (0.30%-0.60%).
- The extreme spread widening in corporate bonds represented an opportunity. Corporate bonds, in fact, staged a strong rally in March. While some of it was related to the rebound in oil prices, market psychology also appears much improved. Yield spreads remain modestly attractive, but industry and issuer selection will be important.
- The volatility in rates during the month had little impact on the money market sector. Credit-based sectors like commercial paper continue to offer exceptional relative value vs. short-term Treasuries and agencies.

#### **Observations**

- The portfolio is of very high credit quality. The majority of securities (83%) are explicitly guaranteed or carry a high level of support by the U.S. Government (U.S. Treasury and Federal Agency) and/or possess overnight liquidity (Washington State LGIP, bank deposits, and repurchase agreements).
- The County's Investment Pool balance (market value) as of March 31, 2016 was \$5.8 billion, having experienced a net decrease of approximately \$426 million over the quarter, following a \$586 million increase from the prior quarter-end.
- Notable sector allocation shifts over the quarter included increases to Cash and Equivalents (2.24%), US Treasuries (2.84%), and Corporate Bank Notes (1.98%), and decreases to Federal Agencies (8.00%).
  - The portfolio continued to increase allocations to corporate sectors (bank notes and commercial paper). These sectors now account for 17% of the overall portfolio totaling \$1.0 billion (up from 6% or \$293 million this time last year). These investments add value to the portfolio as their yields are higher relative to similar maturity government investment options and all are investment grade.
- Over the past several quarters, the Pool has shifted its maturity strategy to reflect a more defensive bias in anticipation of the first Fed rate hike. Aligning short-term maturities to future cash flow dates helps to maximize interest earnings in the current low, short-term interest rate environment and provides for opportunity to reinvest at potentially higher yields, as rates continue to rise.
- As of March 31st, the duration of the County Investment Pool is 0.91 years, a slight decrease from a duration of 0.93 years on December 31st. Over the past several quarters, the Pool's duration has gradually been shifted shorter, which reflects a more defensive posture, as noted above.
- In anticipation of the upcoming quarter, over the past four years, for the quarters ended June 30th, the average net inflow from the Pool was \$523 million.
- The County Pool appears to provide adequate liquidity, with 13% (or \$732 million) invested in a combination of the State LGIP, bank deposits, and repurchase agreements (overnight) and an additional 62% (or \$3.6 billion) of the portfolio's holdings scheduled to mature within the next 12 months.

#### Investment Pool Portfolio Review

#### **Portfolio Review**

- I. Investment Policy Compliance
- II. Sector Allocation
  - U.S. Treasuries
  - Federal Agencies
  - Commercial Paper
  - Corporate Bank Notes
  - LGIP and Cash Equivalents
- III. Issuer Concentration
- IV. Overall Credit Quality
- V. Maturity and Duration Distribution

# I. Investment Policy Compliance – Investment Policy Summary

• The Investment Policy summary is based on the current Investment Policy for the County Investment Pool, dated September 23, 2015.

| Туре                                      | Maximum Portfolio Allocation   | Issuer Restrictions   | Credit<br>Ratings   | Maturity<br>Restrictions |
|---|--|---|---|--------------------------|
| U.S. Treasuries                           | 100%   | None  | N/A   | Up to 5 years            |
| U.S. Agencies                             | 100%   | 35% exposure to any single Agency   | Senior debt obligations issued by any government sponsored enterprise, agency or instrumentality of the United States.  | Up to 5 years            |
| Repurchase Agreement                      | 100%   | 100% for repurchase agreements with the Federal Reserve Bank of New York  25% maximum exposure to any one repo counterparty.  For the purposes of aggregating issuers across sectors, overnight repo counterparties are not included. | The counterparty must have:  1. A rating in the highest short-term credit rating category by at least one Nationally Recognized Statistical Rating Organization (NRSRO); and  2. A minimum asset and capital size of \$5 billion in assets and \$175 million in capital | 60 days or less          |
| Reverse Repurchase<br>Agreement           | 20%  | 5% per investment dealer  | <ol> <li>rated in the highest short-term credit rating category<br/>by at least one NRSRO; and</li> <li>a minimum asset and capital size of \$5 billion in<br/>assets and \$175 million in capital</li> </ol>   | 6 months or less         |
| Local Government Investment Pool ("LGIP") | 25%  | State of Washington LGIP  | N/A   | N/A                      |
| Bankers' Acceptances                      | When combined with Term Repos (greater than overnight), Certificates of Deposit, Commercial Paper and Bank Notes not to exceed 50% of the Pool assets. | Must be issued by a bank organized and operating in the U.S.  Maximum 5% per issuer applied across investment types.  | Rated in the highest short-term credit rating category by at least two NRSROs.  | Up to 180 days           |

# I. Investment Policy Compliance – Investment Policy Summary (cont'd)

| Туре                                  | Maximum Portfolio Allocation  | Issuer Restrictions   | Credit<br>Ratings   | Maturity<br>Restrictions                      |
|---------------------------------------|---|---|---|---|
| Certificates of Deposit               | When combined with Banker's Acceptance, Term Repos (greater than overnight), Commercial Paper and Bank Notes not to exceed 50% of the Pool assets.        | Must be a public depository in the State of Washington.  Maximum 5% per issuer applied across investment types.   | See RCW 39.58 of the state Code.  If not 100% collateralized, must be rated in the highest short-term rating category by at least one NRSRO.  Those institutions not meeting the 100% collateralization or minimum credit requirements may receive deposits up to the FDIC or federally guaranteed amounts.   | Up to 1 year                                  |
| Commercial Paper                      | When combined with Banker's Acceptance, Certificates of Deposit, Term Repos (greater than overnight) and Bank Notes not to exceed 50% of the Pool assets. | Secondary market purchases only.  Must be issued by a bank or corporation organized and operating in the U.S.  Maximum 5% per issuer applied across investment types.   | Purchases with greater than 100 days maturity must have an issuer long-term rating in one of the three highest credit rating categories by one NRSRO.  Rated in the highest short-term rating category by at least two NRSROs. If the commercial paper is rated by more than two NRSROs, it must have the highest rating from all of the organizations.  State law requires that Commercial Paper be purchased only from dealers. | 270 days                                      |
| General Obligation Municipal<br>Bonds | 20%   | 5% of portfolio: bond issues by pool participants must be purchased on the secondary market only  | Rated in at least the highest three long-term rating categories by at least one NRSRO.  | 5 years                                       |
| Mortgage-Backed Securities            | 25%   | Must be issued by Federal Agencies of the United States.  Investments in MBS will count toward the total that can be invested in any one agency as described in U.S. Agencies above.  Full faith and credit MBS are limited to 25%. | Senior debt obligations issued by any government sponsored enterprise, agency or instrumentality of the United States.  The securities must pass the Federal Financial Institutions Examination Council ("FFIEC") suitability test, which banks use to determine lowest risk securities.  | 5 year average<br>life at time of<br>purchase |

# I. Investment Policy Compliance – Investment Policy Summary (cont'd)

| Туре       | Maximum Portfolio Allocation  | Issuer Restrictions  | Credit<br>Ratings   | Maturity<br>Restrictions |
|------------|---|--|---|--------------------------|
| Bank Notes | When combined with Banker's Acceptance, Certificates of Deposit, Commercial Paper and Term Repos (greater than overnight) not to exceed 50% of the Pool assets. | Must be issued by a bank organized and operating in the U.S.  Maximum 5% per issuer applied across investment types. | Rated in at least the highest three long-term rating categories by at least two NRSROs. | 5 years                  |

#### **Additional Notes to the Investment Policy**

- The Pool will maintain an effective duration of 1.5 years or less.
- The Pool will maintain at least 40% of its total value in securities having a remaining maturity of 12 months or less.
- Floating rate and variable rate securities are permitted subject to the following criteria:
  - 1) The rate on the FRN/VRN resets no less frequently than quarterly; and
  - 2) The FRN/VRN is indexed to a money market rate.

# I. Investment Policy Compliance – County Investment Pool

| Topic             | Observations  |
|-------------------|---|
| Sector Allocation | <ul> <li>All sector allocations fall within the limits set forth by the County's Investment Policy Statement. The Pool is predominantly invested in U.S. government<br/>securities which are either explicitly guaranteed or carry a high level of support by the U.S. government.</li> </ul>   |
|                   | • The County's Investment Pool balance (market value) as of March 31, 2016 was \$5.8 billion and experienced a net decrease of approximately \$426 million over the quarter, following a \$586 million increase from the prior quarter-end.   |
|                   | <ul> <li>The seasonality of the Pool's balances indicates a historical balance decrease was expected for this quarter. For example, over the past five years (including first quarter 2015), the Pool's balance has decreased, on average, by \$265 million each quarter-ended March 31st.</li> </ul>   |
|                   | <ul> <li>Over the quarter, sectors that experienced allocation percentage increases, included: Repurchase Agreements (1.51%), US Treasuries (2.84%), Agency<br/>Mortgages (0.01%), the Washington State LGIP (0.40%), Corporate Bank Notes (1.98%), and Cash &amp; Equivalents (2.24%).</li> </ul>  |
|                   | <ul> <li>Sectors that experienced decreases in quarter-over-quarter allocation percentage changes, included: Federal Agencies (8.00%) and Commercial Paper<br/>(0.98%).</li> </ul>  |
|                   | The County continues to maintain a small allocation to agency mortgage backed securities, but has not purchased new agency MBS in several quarters.   |
| Credit Quality    | Securities held by the County are of very high quality and are within the limits set forth in the County Investment Policy.   |
|                   | <ul> <li>Approximately 70% of the County pool's assets are guaranteed or supported by the U.S. government. Further, approximately 6% is invested in the State LGIP, where 46% of the LGIP is invested directly in U.S. Treasuries or Federal Agencies. Additionally, considering the County pool's holdings of repurchase agreements and bank accounts collateralized by government securities, the overall government-related credit quality exceeds 80%.</li> </ul> |
|                   | <ul> <li>Corporate allocations (both commercial paper and corporate bank notes) were slightly increased over the quarter to 17% of the portfolio, up from 6% this time last year; all securities are investment grade.</li> </ul>   |

#### Maturity Distribution

- All maturities fall within the maturity limits set forth in the County's Investment Policy.
- Approximately 62% of the Pool's assets mature in one year or less and approximately 27% of the portfolio is scheduled to mature within the next quarter.

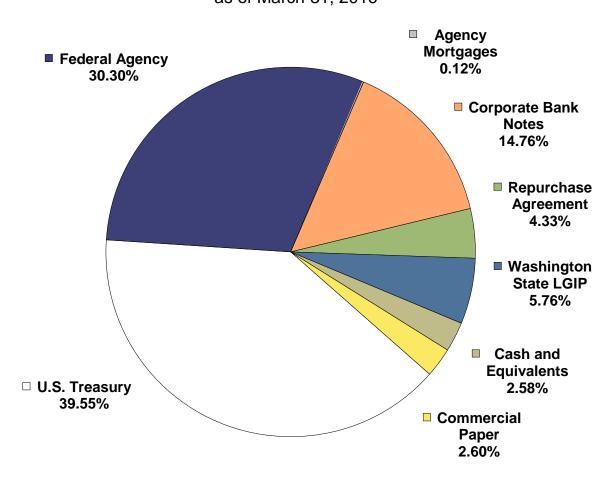
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| Security Type            | Market<br>Value(\$) | Allocation<br>Percentage | Within Policy<br>Limits | Max Maturity Held | Within Policy<br>Limits |
|--------------------------|---------------------|--------------------------|-------------------------|-------------------|-------------------------|
| U.S. Treasury            | 2,282,801,750       | 39.55%                   | ✓                       | 4.17 years        | ✓                       |
| Federal Agency (non-MBS) | 1,748,822,675       | 30.30%                   | ✓                       | 2.15 years        | ✓                       |
| Corporate Bank Notes     | 852,086,071         | 14.76%                   | ✓                       | 3.58 years        | ✓                       |
| Washington State LGIP    | 332,468,053         | 5.76%                    | ✓                       | 1 day             | ✓                       |
| Repurchase Agreements    | 250,000,000         | 4.33%                    | ✓                       | 1 day             | ✓                       |
| Commercial Paper         | 149,855,792         | 2.60%                    | ✓                       | 91 days           | ✓                       |
| Cash and Equivalents     | 149,178,868         | 2.58%                    | ✓                       | 1 day             | ✓                       |
| Agency Mortgages         | 6,962,100           | 0.12%                    | ✓                       | 3.39 years (WAL)  | ✓                       |
| Municipal Notes          | 0                   | 0.00%                    | ✓                       | n/a               | ✓                       |
| Certificates of Deposit  | 0                   | 0.00%                    | ✓                       | n/a               | ✓                       |
| TOTAL                    | \$5,772,175,308     | 100.00%                  |                         |                   |                         |

<sup>\*</sup>Percentages may not total to 100% due to rounding.

#### II. Sector Allocation

Sector Diversification as of March 31, 2016

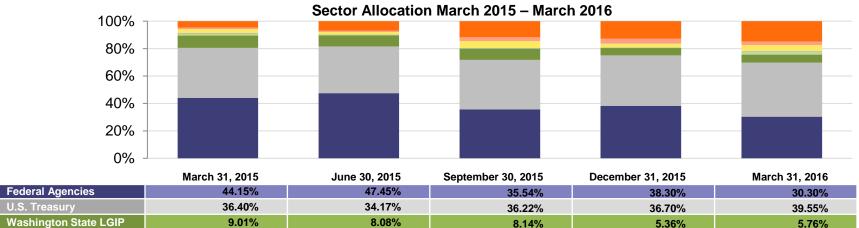


<sup>\*</sup>Percentages may not total to 100% due to rounding.

# II. Changes in Portfolio Sector Allocation over Past 12 Months

Changes in Sector Allocation

- The County's investment pool increased percentage allocations to Cash and Equivalents (2.24%), U.S. Treasuries (2.84%), the Washington State LGIP (0.40%), Repurchase Agreements (1.51%), Corporate Bank Notes (1.98%), and Agency Mortgages (0.01%), while Federal Agencies and Commercial Paper accounted for decreased percentage allocations over the quarter (8.00% and 0.98%< respectively).
- <u>Federal Agencies.</u> Federal agency allocations dropped below U.S. Treasury allocations since last quarter's increase. Approximately \$626 million of agency holdings matured during the quarter and the proceeds were not reinvested into any new Agency securities.
- <u>U.S. Treasuries.</u> U.S. Treasury allocations increased by \$8 million over the quarter. Treasury purchases were targeted in the 1.5-year to 4-year maturity range.
- <u>Corporate Bank Notes.</u> The portfolio added funds to corporate bank notes over the quarter, marking a continued trend of increasing allocations to this sector over the past several quarters. The past four quarters experienced net increases to the corporate bank note sector of \$157 million, \$267 million, \$129 million, and \$60 million, respectively. This sector now accounts for 14.8% of the overall portfolio totaling \$852 million (compared to 12.8%, or \$792 million, last quarter).
- <u>Commercial Paper.</u> The portfolio currently owns three commercial paper issuers totaling \$150 million (or 2.6% of the total portfolio), representing an decrease of \$72 million over the quarter.
- Washington State LGIP. Balances invested in the State LGIP increased over the quarter by approximately \$347 thousand, and continued to serve as the Pool's primary liquidity vehicle. This sector accounts for 5.8% of the overall portfolio.
- Repurchase Agreements and Bank Deposits. Allocations to repurchase agreements increased by \$75 million over the quarter and accounted for 4.3% of the total portfolio. Bank deposits were increased modestly by approximately \$128 million over the quarter to \$149 million (or to 2.6% of the total portfolio).



| Federal Agencies      | 44.15% | 47.45% | 35.54% | 38.30% | 30.30% |
|-----------------------|--------|--------|--------|--------|--------|
| U.S. Treasury         | 36.40% | 34.17% | 36.22% | 36.70% | 39.55% |
| Washington State LGIP | 9.01%  | 8.08%  | 8.14%  | 5.36%  | 5.76%  |
| Cash and Equivalents  | 1.51%  | 0.38%  | 0.40%  | 0.35%  | 2.58%  |
| Agency Mortgages      | 0.17%  | 0.14%  | 0.13%  | 0.11%  | 0.12%  |
| Municipal Notes       | -      | -      | -      | -      | 0.00%  |
| Repurchase Agreements | 3.00%  | 1.91%  | 5.08%  | 2.82%  | 4.33%  |
| Commercial Paper      | 1.08%  | 0.88%  | 2.67%  | 3.58%  | 2.60%  |
| Corporate Bank Notes  | 4.69%  | 6.99%  | 11.81% | 12.78% | 14.76% |

<sup>\*</sup>Percentages may not total to 100% due to rounding.

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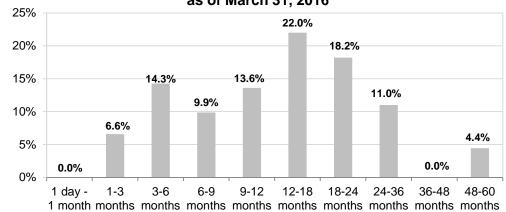
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## II. Sector Allocation – U.S. Treasury Securities

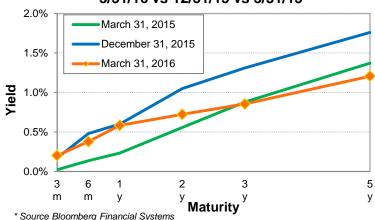
#### DigoT **Observations** Observations The County's balances held in U.S. Treasuries increased by \$7.8 million over the quarter and now represent nearly 40% of the total portfolio (up 3% from previous quarter-end). Over the quarter, it appears the Pool targeted approximately \$201 million in new U.S. Treasury notes with maturities in the 1.5- to 4.0-year maturity range. Treasury yields moved lower in the first quarter largely in response to further weakening in the global economy and the Fed's "dovish" tone after their March meeting. As a result, investors sought safe haven Treasuries, pushing their yields lower across much of the curve. o As shown in the chart on the right below, over the past 12 months, U.S. Treasury yields on maturities in the 3-month to 3-year area of the yield curve have increased. Most of this change is due to the Fed rate hike in December. o Therefore, with short maturities remaining elevated and intermediate (up to seven years) and longer (over seven years) maturities falling substantially, the yield curve continued to flatten in the first quarter. The majority of the Pool's Treasury investments (\$1.3 billion, or 56% of all Treasury holdings) have remaining maturities of greater than one year and are positioned in the steeper portions of the U.S. Treasury yield curve. Allocations to Treasury holdings with maturities less than one year increased a total of 4.8% over the quarter, as previously held Treasuries naturally drifted closer to maturity. • The County's weighted average maturity (WAM) of its Treasury allocation increased over the quarter by 1 day, from 471 days on December 31st, to 472 days on March 31st.

- The chart below, on the left, illustrates the current maturity distribution of the County's allocations to U.S. Treasuries and the chart on the right illustrates the current shape of the US Treasury yield curve, compared to the yield curve three months ago and one year ago.
  - Of the County's Treasury allocations, 44% is allocated to maturities less than 12 months (versus 40% last quarter).
  - As liquidity permits and new investment opportunities become available, these short-term US Treasury holdings (less than 12 months) are ideal to trade for
     (1) longer-term Treasury or corporate bank note investments targeted to the steepest portions of the yield curve and/or (2) higher-yielding, similar-maturity
     investments in other sectors, such as federal agencies, commercial paper, or short-term corporate bank notes.

#### U.S. Treasury Maturity Distribution as of March 31, 2016

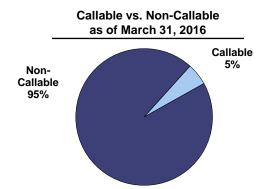


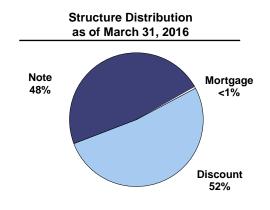
#### U.S. Treasury Yield Curve 3/31/16 vs 12/31/15 vs 3/31/15

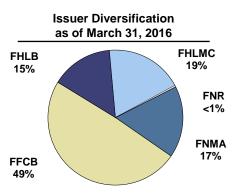


# II. Sector Allocation – Federal Agencies

| Topic   | Observations  |   |  |  |
|---|---|---|--|--|
| Structure (as % of Federal<br>Agency Allocations)           | <ul><li>Non-Callable</li><li>Callable</li></ul>   | 95%<br>5%   | <ul><li>Discount Notes</li><li>Coupon bearing Notes</li><li>Agency Mortgage</li></ul>  | 48%<br>52%<br><1%  |
| <b>Diversification</b> (as % of Federal Agency Allocations) | <ul><li>Freddie Mac (FHLMC)</li><li>Federal Home Loan Bank (FHLB)</li><li>Fannie Mae (FNMA)</li></ul>   | 19%<br>15%<br>17%   | <ul><li>Federal Farm Credit Bank (FFCB)</li><li>Freddie Mac Mortgage-Backed (FHR)</li><li>Fannie Mae Mortgage-Backed (FNR)</li></ul> | 49%<br>0%<br><1%   |
| Conclusions   | <ul> <li>allocations fall within the issuer guidelines se</li> <li>Federal Agency allocations decreased by \$62 paired with \$626 million in maturities. The characteristic of approximately \$1 million.</li> <li>From a security structure standpoint (the rational security as callable allocations increased to 5% of agentic of the past quarter, a portion of the Found of the Pound of the</li></ul> | t forth in the County' 25 million over the quange in market value of of non-callable to cency holdings, thoug Pool's callable securi agency Note or Discours, the County's over |  | o no new Agency purchases, uarter makes up the difference urities ceased over the quarter, |







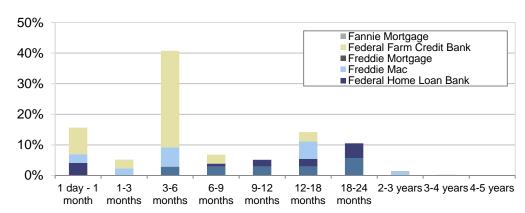
<sup>\*</sup>All calculations above are based on total cash equivalents exposure, not overall Portfolio.

<sup>\*\*</sup>Percentages may not total to 100% due to rounding.

# II. Sector Allocation – Federal Agencies

| <b>Observations</b>  |
|--|
| The County's Federal Agency maturity distribution falls within the limits set forth by the Investment Policy Statement.  |
| • Over the quarter, the County's weighted average maturity (WAM) of Federal Agency holdings decreased by 13 days, from 257 days on December 31st to 244 days on March 31st.  |
| <ul> <li>It appears that approximately \$626 million in agency securities were either called, sold, or matured during the quarter and the proceeds were not<br/>reinvested in more Agency securities.</li> </ul>   |
| <ul> <li>As of March 31, 2015, 74% of agency allocations were invested in maturities less than 12 months and 62% in maturities less 6 months.</li> <li>Comparatively, 44% of U.S. Treasury allocations were invested in maturities less than 12 months and 21% in maturities less 6 months.</li> </ul> |
| <ul> <li>Conversely, while 27% of agency allocations were invested beyond 1 year, 56% of Treasury allocations were invested beyond 1 year. This "short/long" relationship between Treasuries and agencies illustrates the cross-sector value along the yield curve.</li> </ul>                         |
| <ul> <li>The overweight to shorter-term agencies can be attributed to the combination of:</li> </ul>   |
| (1) discount note yields remaining elevated and providing higher yields compared to similar duration Treasury securities (as shown in the chart on the right, discount note yields decreased modestly in the quarter, though remain elevated), and   |
| (2) tight yield spreads between agency and Treasury securities of similar maturity beyond 2 years. That is, yields of 2-year agencies and<br>Treasuries are relatively close, and in these instances, the U.S. Treasury security is typically preferred.   |
|  |

### Federal Agency Maturity Distribution by Name as of March 31, 2016



#### Agency Mortgage maturities are calculated as average life. Average life data taken from Bloomberg Financial Markets

· All other Agency maturities are calculated as days to maturity.

#### Short-Term Federal Agency Yields Past 24 Months



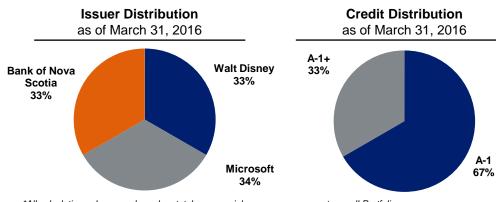
11

<sup>·</sup> Callable securities are shown to their next call date.

<sup>\*</sup> Source Bloomberg Financial Systems

# II. Sector Allocation – Commercial Paper

|                           | Observations   |
|---------------------------|--|
| Issuer<br>Diversification | <ul> <li>The County's allocations to commercial paper decreased over the quarter, by approximately \$72 million, and now account for 2.6% of the total portfolio.</li> <li>The portfolio now owns commercial paper of three issuers: Walt Disney, Microsoft, and Bank of Nova Scotia.</li> <li>\$172 million of maturities in Apple Inc. and UPS over the quarter allowed for \$100 million to be reinvested into Walt Disney and Microsoft, similarly rated issuers.</li> <li>It appears the County continues to regularly reinvest the proceeds of commercial paper maturities into new commercial paper issues.</li> <li>"Rolling" short-term commercial paper is an attractive investment strategy relative to most other ultra short-term permitted investment options in the current fixed income market.</li> </ul> |
|                           | All allocations fall within the permitted investment guidelines of 5% per issuer and 25% maximum to the sector.  |
| Credit<br>Distribution    | <ul> <li>Standard &amp; Poor's rates the short-term credit of Walt Disney and Bank of Nova Scotia as A-1 and Microsoft as A-1+.</li> <li>Moody's rates the short-term credit of all of the County's CP issuers as P-1.</li> </ul>  |
| Conclusions               | <ul> <li>Commercial paper provides the County an opportunity and an investment outlet to access non-bank, corporate debt (industrial, technology, etc.), as the county's IPS limits corporate note exposure to banks.</li> <li>High-quality commercial paper has offered a noticeable yield advantage relative to similar maturity Treasury and agency securities over the past several years. This yield advantage of commercial paper is even more pronounced at longer maturities. As a result, the County's portfolio may benefit from additional allocations to other high-quality commercial paper issuers. The commercial paper yield curve is steepest in maturities beyond three months (chart on far right).</li> </ul>  |





<sup>\*\*</sup>Percentages may not total to 100% due to rounding.

# Current Short-Term Yields as of March 31, 2016 1.20% 1.00% 1.00% 0.80% 0.60% 0.40% 1 2 3 4 5 6 7 8 9 10 11 12 Maturity in Months

<sup>\*</sup> Source Bloomberg Financial Systems

## II. Sector Allocation - Corporate Bank Notes

#### **Observations** The County has added allocations to high-quality corporate bank notes for the seventh consecutive quarter. This sector now accounts for 14.8% of the overall Issuer portfolio totaling \$852 million, an increase of \$60 million over the guarter. **Diversification** • The portfolio's corporate bank note allocations include ten issuers (compared to nine issuers at the previous quarter-end): US Bank (\$125 million or 2.2% of the total portfolio), Bank of America (\$119 million or 2.1%), Toronto Dominion Bank (\$127 million or 2.2%), Royal Bank of Canada (\$121 million or 2.1%), PNC Bank (\$74 million or 1.3%), Wells Fargo Bank (\$117 million or 2.0%), Bank of Nova Scotia (\$93 million or 1.6%), Bank of Montreal (\$51 million or 0.9%), JP Morgan Chase (\$15 million or 0.3%), and Canadian Imperial Bank (\$10 million or 0.2%). Of the County's allocations to corporate bank notes, \$244 million (or 29% of corporate bank notes, down from 31% at previous guarter end) is allocated to callable structures; however, all of the callable corporate holdings have a "next call date" that is approximately one month before their respective final maturity. As a result, the callable structures of these investments will have minimal impact on maturity and duration management of the overall portfolio. • When viewing the County's corporate bank note holdings to the next call date, the weighted average maturity of these investments is 1.4 years. Of the County's total allocation to this sector, 52% is allocated to maturities beyond 1 year. All allocations fall within the permitted investment guidelines of 5% per issuer (please refer to following pages) and 20% maximum to the sector. Credit · All ratings are investment grade and fall within the credit guidelines in the County's Investment Policy Statement. S&P ratings (long-term and short-term): Distribution - Bank of America (A and A-1); PNC Bank (A and A-1); US Bank (AA- and A-1+); Wells Fargo (A+ and A-1+); Toronto Dominion Bank (AA- and A-1+); Royal Bank of Canada (AA- and A-1+); Bank of Nova Scotia (A+ and A-1); Bank of Montreal (A+ and A-1); JP Morgan Chase (A+ and A-1); Canadian Imperial Bank (A+ and A-1)

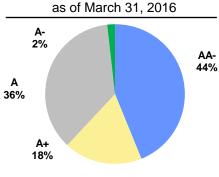
Bank of America (A1 and P-1); PNC Bank (Aa2 and P-1); US Bank (Aa3 and P-1); Wells Fargo (Aa1 and P-1); Toronto Dominion Bank (Aa1 and P-1); Royal Bank of Canada (Aa3 and P-1); Bank of Nova Scotia (Aa2 and P-1); Bank of Montreal (Aa3 and P-1); JP Morgan Chase (Aa2 and P-1);

#### Issuer Distribution

as of March 31, 2016

| <u>Issuer</u>          | % of Corporates | % of Portfolio |  |  |  |  |
|------------------------|-----------------|----------------|--|--|--|--|
| US Bank                | 15%             | 2.2%           |  |  |  |  |
| Toronto Dominion       | 15%             | 2.2%           |  |  |  |  |
| Bank of America        | 14%             | 2.1%           |  |  |  |  |
| Royal Bank of Canada   | 14%             | 2.1%           |  |  |  |  |
| Wells Fargo            | 14%             | 2.0%           |  |  |  |  |
| Bank of Nova Scotia    | 11%             | 1.6%           |  |  |  |  |
| PNC Bank               | 9%              | 1.3%           |  |  |  |  |
| Bank of Montreal       | 6%              | 0.9%           |  |  |  |  |
| JP Morgan Chase        | 2%              | 0.3%           |  |  |  |  |
| Canadian Imperial Bank | 1%              | 0.2%           |  |  |  |  |

#### Credit Distribution (S&P)\*



#### \* "Credit Distribution" calculations above are based on total Corporate Bank Note exposure, not overall Portfolio.

Moodys ratings (long-term and short-term):

Canadian Imperial Bank (A2 and P-1)

\*\*Percentages may not total to 100% due to rounding.

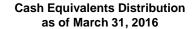
#### 1-5 Year Financial Corporate/Treasury Yield Spreads

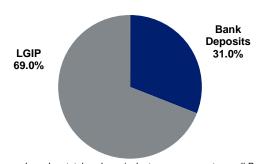


<sup>\*</sup> Source Bloomberg Financial Systems

# II. Sector Allocation – LGIPs and Cash Equivalents

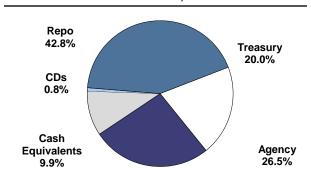
|                          | Underlying Investments  | Rating (Short-<br>Term: S&P/<br>Moody's/Fitch)   | Observations  |
|--------------------------|---|--|---|
| Washington<br>State LGIP | <ul> <li>Federal Agencies 26.5%</li> <li>U.S. Treasuries 20.0%</li> <li>Cash Equivalents 9.9%</li> <li>Certificates of Deposit 0.8%</li> <li>Repurchase Agreements 42.8%</li> <li>As of March 31, 2016</li> </ul> | • N/A  | <ul> <li>The County currently has allocated \$332 million to the Washington State LGIP, in line with the previous quarter.</li> <li>Despite the decrease in LGIP balance over the past two years, the County's allocation to the State LGIP continues to serve as the primary overnight liquidity vehicle for the portfolio.</li> <li>Similar to the County Pool's allocation changes over the quarter, the State LGIP also decreased federal agency discount notes approximately (20.4%), while most other sectors experienced increases in percentage allocations over the quarter, with Repurchase Agreements leading the way at a 12.4% increase.</li> </ul>  |
| Cash<br>Equivalents      | <ul> <li>State LGIP 69.0%</li> <li>U.S. Bank 29.5%</li> <li>Key Bank 1.2%</li> <li>Bank of America 0.3%</li> </ul> As of March 31, 2016   | <ul> <li>U.S. Bank:<br/>A-1+/P-1/F1+</li> <li>Key Bank:<br/>A-2/P-2/F-1</li> <li>Bank of America:<br/>A-1/P-2/F-1</li> </ul> | <ul> <li>The County's deposit accounts at U.S. Bank, Key Bank, and Bank of America are FDIC-insured up to FDIC limits, and are 100% collateralized by the Public Deposit Protection Commission.</li> <li>The County increased allocations to bank deposits by approximately \$127.7 million over the quarter to \$149.2 million. The U.S. Bank account now represents over 95% of the Pool's bank deposit allocations (Key Bank 4% and Bank of America 1%).</li> <li>Additionally, while the County pool is limited to CDs issued by banks in the State of Washington, there still may be an opportunity to add small allocations to CDs, as this sector continues to provide incremental yield advantages relative to many shorter-term investment options of similar maturity.</li> </ul> |





<sup>\*</sup>All calculations above are based on total cash equivalents exposure, not overall Portfolio.

#### Washington State LGIP Sector Distribution as of March 31, 2016



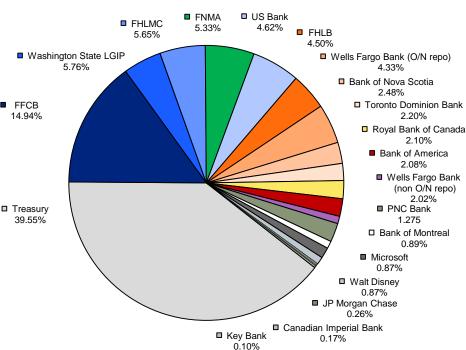
<sup>\*\*</sup>Percentages may not total to 100% due to rounding.

#### III. Issuer Concentration

#### **Issuer Exposure**

- · The County continues to maintain a well-diversified portfolio by issuer, as is evidenced by the chart below.
- Approximately 70% of the portfolio is allocated directly to U.S. government guaranteed or government supported entities.
- Of the remaining 30% of the portfolio, 13% is allocated to ultra short-term or overnight investment vehicles, including the State LGIP, repurchase agreements, and bank deposits. The remaining 17% is allocated to credit issuers, including commercial paper and corporate bank notes.
- When including the Pool's indirect exposure to issuers through its holdings in the Washington State LGIP, the Pool's allocation to securities issued by U.S. government or government supported entities would increase to 73%.
- The County added one new commercial paper issuer to the portfolio over the quarter, Walt Disney, with 0.87% of total pool assets.
- Each of the corporate issuers n the portfolio (including the County's bank deposits) falls within the 5% corporate issuer limit when aggregated among all sectors, as shown in the charts below.

| as sno                          | wil ill the charts be | IOW.       |              |       |
|---------------------------------|-----------------------|------------|--------------|-------|
| Issuer Distribution             | Value                 | Percentage | Issuer Limit |       |
| Treasury                        | \$2,282,801,750       | 39.55%     | 100%         |       |
| FFCB                            | 862,465,797           | 14.94%     | 35%          |       |
| Washington State LGIP           | 332,468,053           | 5.76%      | 25%          |       |
| FHLMC                           | 325,939,515           | 5.65%      | 35%          | _     |
| FNMA                            | 307,776,100           | 5.33%      | 35%          |       |
| US Bank                         | 266,818,494           | 4.62%      | 5%           | ■ FF  |
| FHLB                            | 259,603,362           | 4.50%      | 35%          | 14.9  |
| Wells Fargo Bank (O/N repo)     | 250,000,000           | 4.33%      | 25%          |       |
| Bank of Nova Scotia             | 143,395,505           | 2.48%      | 5%           |       |
| Toronto Dominion Bank           | 127,221,435           | 2.20%      | 5%           |       |
| Royal Bank of Canada            | 121,403,793           | 2.10%      | 5%           |       |
| Bank of America                 | 120,050,683           | 2.08%      | 5%           | □ Tre |
| Wells Fargo Bank (non O/N repo) | 116,685,719           | 2.02%      | 5%           | 39    |
| PNC Bank                        | 73,540,435            | 1.27%      | 5%           |       |
| Bank of Montreal                | 51,116,771            | 0.89%      | 5%           |       |
| Microsoft                       | 49,963,570            | 0.87%      | 5%           |       |
| Walt Disney                     | 49,940,000            | 0.87%      | 5%           |       |
| JP Morgan Chase                 | 15,167,738            | 0.26%      | 5%           |       |
| Canadian Imperial Bank          | 10,023,300            | 0.17%      | 5%           |       |
| Key Bank                        | 5,793,288             | 0.10%      | 5%           |       |
| Total                           | \$5,772,175,308       | 100.00%    |              |       |
|                                 |                       |            |              |       |



<sup>\*</sup>Percentages may not add to 100% due to rounding.

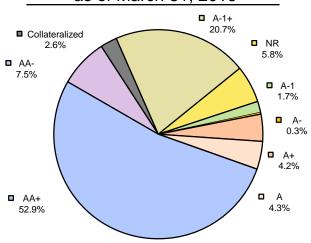
<sup>\*</sup> For the purposes of totaling issuer concentration, issuers are aggregated across all sector types. It is noted however that issuers across sector types may maintain separately rated issuer credits.

## IV. Overall Credit Quality

#### **County Investment Pool Credit Analysis**

- The County Pool's overall average credit rating remains very strong and is primarily
  concentrated in U.S. government guaranteed and/or supported securities which maintain a
  long-term credit rating of AA+ by Standard & Poor's and federal agency discount notes,
  which maintain a short-term credit rating of A-1+ by S&P.
- During the quarter, the County added exposure to one high quality corporate note issue, Canadian Imperial Bank (\$10 million, or 0.17%, of the total portfolio) rated A+ by S&P and A2 by Moody's.
- The County added to its commercial paper exposure with the addition of Walt Disney to its list of issuers (\$50 million or 0.87% of the total portfolio), rated A by S&P and Aa3 by Moody's and Microsoft (\$50 million or 0.87%), rated AAA by S&P and Aa3 by Moody's.
- Allocations were maintained to bank notes for Bank of America, U.S. Bank, Wells Fargo, PNC Bank, Royal Bank of Canada, Toronto Dominion Bank, Bank of Nova Scotia, JP Morgan Chase, and Bank of Montreal and commercial paper allocations were maintained for Bank of Nova Scotia.
  - Corporate bank note allocations held throughout the quarter have ratings of A/A1 or higher.
  - Commercial paper allocations that were maintained are all rated A-1/P-1 or higher.
- The County has additional corporate exposure through its 2.6% allocation to bank deposits.
  - These deposits are 100% collateralized by U.S. Treasury and Federal Agency securities, as the County's deposits are covered by the Public Deposit Protection Commission.
- The 5.8% NR allocation represents the County's investment in the Washington State LGIP, which is not currently rated by any ratings agency.
- The County's investment in the Washington LGIP includes indirect corporate exposure:
  - Through the LGIP, 2.7% of the County's Pool is allocated indirectly to corporate securities (repurchase agreements and certificates of deposit).
  - The collateralization of the securities held by the LGIP minimizes any credit risk.
- PFM has no concerns regarding the Pool's current credit distribution.

## Credit Distribution\* as of March 31, 2016



Issuer Ratings Table (Corp/CP) as of March 31, 2016

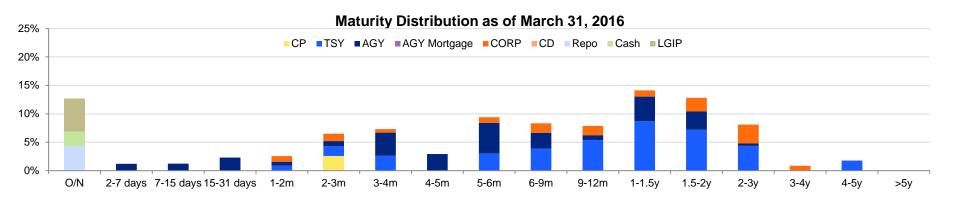
| Issuer Distribution`   | Sectors<br>Invested | S&P<br>Short | S&P<br>Long | Moodys<br>Short | Moodys<br>Long |
|------------------------|---------------------|--------------|-------------|-----------------|----------------|
| Bank of America        | Corp                | A-1          | Α           | P-1             | A1             |
| Bank of Montreal       | Corp                | A-1          | A+          | P-1             | A1             |
| Bank of Nova Scotia    | Corp/CP             | A-1          | A+          | P-1             | Aa2            |
| JP Morgan Chase        | Corp                | A-1          | A+          | P-1             | Aa2            |
| PNC Bank               | Corp                | A-1          | Α           | P-1             | Aa2            |
| Royal Bank of Canada   | Corp                | A-1+         | AA-         | P-1             | Aa3            |
| Toronto Dominion Bank  | Corp                | A-1+         | AA-         | P-1             | Aa1            |
| US Bank                | Corp                | A-1+         | AA-         | P-1             | Aa3            |
| Wells Fargo Bank       | Corp                | A-1+         | AA-         | P-1             | Aa1            |
| Microsoft              | CP                  | A-1+         | AAA         | P-1             | Aa3            |
| Walt Disney            | CP                  | A-1          | Α           | P-1             | Aa3            |
| Canadian Imperial Bank | Corp                | A-1          | A+          | P-1             | A2             |

<sup>\*</sup>Ratings by S&P; percentages may not add to 100% due to rounding.

<sup>\*\*</sup>Bank ratings of the depositories for the collateralized securities are given on page 14.

# V. Maturity Distribution

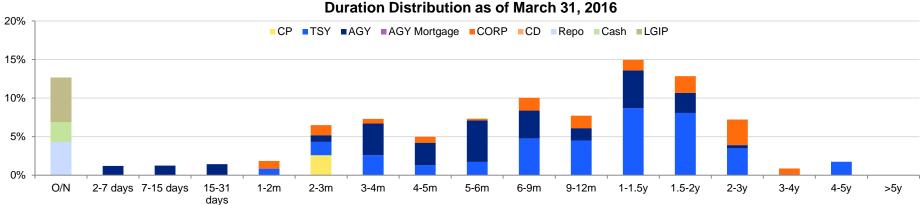
| Maturity Distribution                | Observations  |
|--------------------------------------|---|
| Weighted Average<br>Maturity ("WAM") | <ul> <li>The County continues to diversify holdings across its permitted maturity range, as seen in the chart below.</li> <li>A majority of the holdings – 62% of the portfolio – are scheduled to mature or have a call date within the next twelve months. This percentage is in line with the previous quarter-end.</li> <li>It appears the County's maturity strategies over the past several quarters have included:         <ul> <li>Allowing previously purchased, longer-dated U.S. Treasury, federal agency, and corporate bank note investments to naturally shorten in maturity and roll-down the yield curve,</li> <li>Reallocate a portion of overnight investments into higher-yielding, short-term investment vehicles, including: commercial paper, corporate bank notes, and agency discount notes,</li> <li>Target duration extensions in the following spaces:</li></ul></li></ul> |
| Liquidity                            | <ul> <li>The County Pool appears to provide adequate liquidity, both in terms of final maturities and the sectors in which the Pool has invested. In addition to the 12.7% (or \$732 million) invested in a combination of the Washington State LGIP, bank deposits, and repurchase agreements (overnight liquidity), an additional 4.8% of the portfolio's holdings are scheduled to mature within the next thirty-one days.</li> <li>Based on historical cash flow patterns, the Pool would expect a increase in funds during the second quarter. On average, over the past four years, the County has experienced an average net cash inflow of \$523 million in quarters ended June 30th.</li> </ul>  |



- · Agency Mortgage maturities are calculated as average life. Average life data taken from Bloomberg Financial Markets
- · Callable securities shown to their call date.
- · All other security maturities are calculated as days to maturity. WA LGIP is considered to have a one day maturity.

#### V. Duration Distribution

| <b>Duration Distribution</b> | Observations   |
|------------------------------|--|
| Definition                   | <ul> <li>Duration is a measure of the sensitivity of the value of principal of an investment to a change in interest rates. For example, the value of a portfolio with a higher duration is more sensitive to interest rate increases and decreases.</li> <li>Duration is often quoted in years and is commonly used as a measure of the market risk of a security or portfolio. Duration can be derived in a number of ways; please refer to the notes at the bottom of this page for details.</li> </ul>   |
| Duration                     | <ul> <li>The portfolio's weighted average duration is within the IPS guidelines (no greater than 1.5 years).</li> <li>As of March 31st, the duration of the County Investment Pool was 0.91 years, a slight decrease from a duration of 0.93 years on December 31st. Over the past four quarters, the Pool's duration has gradually been shifted shorter (1Q15 1.14 years, 2Q15 1.07 years, 3Q15 0.98 years, 4Q15 0.93 years, 1Q16 0.91 years), which appears to reflect a defensive posture with awareness of the general outlook for gradual increases in interest rates.</li> <li>The decrease in portfolio duration can also be attributed to a natural shortening of a majority of previously purchased securities.</li> <li>When comparing the weighted average duration of the aggregate portfolio to the WAM of the portfolio, it is observed that the duration (0.91 years) and the WAM (0.92 years) are virtually the same.</li> <li>This difference in duration and WAM has narrowed to zero over the past several quarters (largely due to declining overall allocations to callable agencies). Dating back 24 months, the spread between the portfolio's duration and WAM has decreased consistently from 0.27 years on March 31, 2014.</li> <li>For performance and duration comparison purposes, the portfolio is measured against a blended benchmark consisting of 40% Bank of America Merrill Lynch 3-Month Treasury Index and 60% Bank of America Merrill Lynch 1-3 Year Treasury &amp; Agency Index.</li> <li>Over the past several quarters, the County portfolio has shifted to a more defensive bias and as of March 31st was 81% of the benchmark. In anticipation of rising rates, a more defensive duration bias helps mitigate the adverse impact that potential interest rate increases may have on market value.</li> </ul> |

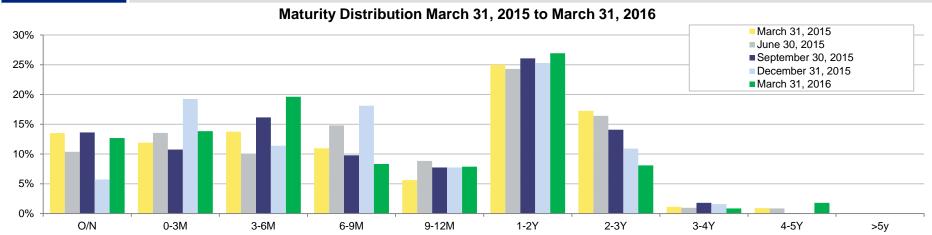


- · Agency Mortgage durations are shown as effective duration taken from Bloomberg Financial Markets.
- Duration for Federal Agency Discount Notes and Repurchase Agreements are calculated as days to maturity. WA LGIP and bank deposits considered to have a one day duration.
- · All other security durations are calculated as effective duration as given by Bloomberg Financial Markets.

## V. Changes in Portfolio Maturity Distribution

Changes in Portfolio Maturity Distribution

- · When viewing the current maturity distribution (dark green bars) in relation to previous periods, a few primary observations are noted:
  - Approximately 12 months ago, the County targeted tactical allocations to the very steep "2-3 Year" maturity range (17% of the portfolio as of 1Q15 versus 8% as of 1Q16), and over the past few quarters those securities have been held, rolling down the yield curve, and naturally shortening in duration to the "1-2 Year" maturity range.
  - The County's previous tactical allocations to the "3-4 Year" and "4-5 Year" maturity range benefited the portfolio. Over the 12-month period ending March 31, 2016, 1-5 Year Treasuries outperformed 1-3 Year Treasuries by approximately 70 basis points.
  - With expectations for future interest rate hikes, the portfolio appeared to be positioned with less emphasis on securities in longer durations to help protect market values against the rising interest rate environment.
  - As of March 31, 2016, 20% and 27% of the portfolio is positioned in the 3 to 6 month and 1 to 2 year area of the curve, representing a balance of defensive duration posture and steep yield curve positioning (maturities beyond 1 year).
    - The increase in allocations in the 3 to 6 month and 1 to 2 year maturity ranges, appear to be a result of continued purchases of new credit issues including high-quality commercial paper and short-term corporate bank notes. These sectors continue to offer incremental yield advantage compared to similar maturity Treasuries.
  - As noted above, overnight allocations appear to have increased over the quarter, however, they are generally in-line with prior quarters. Removing
    excess liquidity from overnight investment vehicles and aligning short-term maturities to future cash flow dates helps to maximize interest earnings in the
    current low, short-term interest rate environment and provides for opportunity to reinvest at potentially higher yields, as rates continue to rise.
- Seasonality of cash flows is critical to maturity distribution and liquidity management and the following is a snapshot of the historical cash flow averages for upcoming quarters.
  - Over the past four years, for the quarters ending June 30, the average net inflow to the Investment Pool was \$523 million.
  - Over the past four years, for the quarters ending September 30, the average net outflow to the Investment Pool was \$297 million.



- · Agency Mortgage maturities are calculated as average life. Average life data taken from Bloomberg Financial Markets
- · Callable securities shown to their call date.
- · All other security maturities are calculated as days to maturity. WA LGIP is considered to have a one day maturity.

#### Disclaimer

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